TRANSPORTATION DISTRICT 2

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TECHNICAL BULLETIN

Volume 12. Issue 6

September/October 2004

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Permanent Sign Installation

With permanent signs now being installed on construction projects, its a good time to inform field engineers of some of the requirements for proper permanent sign installation per the WISDOT sign plates.

Wood posts:

1. Signs wider than 4 feet or larger than 20 square feet require multiple posts
2. For 4 x 6 wood posts make sure the 1 1/2" diameter holes (qty = 2) are drilled in the posts per sign plate A4-11.
3. Proper tamping of backfill and placed in 6" layers.
4. Make sure post is plumb.
5. Proper depth below grade - 4' minimum for 20 sq ft sign or less. 5' minimum for over 20 square foot sign.
6. If in concrete median provide a knockout opening in concrete. Do not pour concrete flush against post.

Multiple Posts

Metal posts:

1. Signs wider than 3' or larger than 9 square feet use multiple posts.
2. Use 3 piece anchor system per SDD 15 C13-1.

Type II wood and sheet aluminum signs:

1. 1 1/4" nylon washers
2. Drilling of mounting holes to be 2" from top and bottom of sign
3. Squaring the sign on the post
4. Sign shall project 1" +/- 1/2" above the top of the post.
5. Wood battens on back of aluminum signs per gray book.
6. Proper horizontal offset per sign plate A4-3 and A4-4.
7. Proper vertical clearance per sign plates A4-3 and A4-4 which is 6' to bottom of sign for rural areas. 7' to bottom of sign for urban areas where there are parked cars or pedestrians. If no park cars or pedestrians use 6' clearance. If there is a secondary sign it is 1' less clearance, i.e 5' to bottom of secondary sign for rural and 6' to bottom of secondary sign for urban (parked cars and/or pedestrians).
8. Vandalism stickers required on front of sign and color coded date tag on back.

Don't forget that the majority of projects have a proving period in the special provisions. Questions, contact Tom Heydel, Traffic Operations and Design, 262-548-6763.

Fall Landscaping

"Fall has arrived and it's time to think about buttoning up our projects for winter, and eventually, our spring storms. Consider finish landscaping-top soiling, seeding, mulching, matting, sodding... as much of the project as possible. Restore the site if the site will remain undisturbed for 30 calendar days or more. Pay particular attention to sensitive areas (streams, wetlands, etc.). Have the foresight to protect the area now for next year's spring rains. Your project ECIP should have details for over winter landscaping.

Landscaping

Ideal seeding for southern Wisconsin is Aug 15 - Sept 20. If germination is needed for erosion control, do not seed after Sept 20. Seed placed after Sept 20 will generally not germinate because ground temperatures below 50 degrees will not break the seed coat. Hydro seeding may speed up germination by softening the seed coat before sowing. Seeding after this time should follow a dormant seeding approach. Don't forget to seed or mat as needed.

Dormant seeding should occur from Mid October - Mid November. Try to wait until the air temperature is consistently cooler, so the seed does not germinate and die off after some sprigs appear. The soil shouldn't be frozen, so seed can be cultivated. Do not dormant seed ditches!!!

Sod is best laid in southern WI between Aug 10- Aug 25; however it can still be effective if laid before Oct 26. Use other methods for erosion control if sod is put down later in the season.

Review your project specific ECIP. Don't forget to contain your site from any possible "off site sediment deposition". Additional erosion control items, other than those needed for over wintering, may be necessary to protect your projects from spring rains. It is better to implement these now, rather than placing them during a spring rain!"

"Pay particular attention to sensitive areas (streams, wetlands, etc.)."

On and Off Ramp Alignments

When designing horizontal and vertical alignments for on or off ramps, designers need to pay close attention to the gore area of the ramps. Profiles for the ramps should maintain a close proximity to the mainline profile for a distance past the gore to avoid problems. If vertical alignments diverge away from the mainline profile too quickly, this can lead to steep side-slopes, storm water runoff washing shoulder gravel across ramps or roadways and insufficient room for proper ditching. Also designers should consider future improvements that could require crash cushions, sand barrels, etc if warranted by other improvements in the area. If cross slopes are too steep, proper installation of safety systems cannot be accomplished without rework of ramp alignments.

Mountable Curb and Gutter and Beam Guard at Bridges

Most high speed and transitional speed urban roadways in the district are being designed with 36 inch mountable curb and gutter. One problem designers should be aware of is at the approach to bridges where beam guard is required to protect the parapet. In areas where thrie beam structure approaches are installed, the width of the curb is too wide for the beam guard. The standard 8 inch offset blocks would require additional shimming. Designer should consider using an alternate curb and gutter with a sloping face. Table 3 in FDM 11-20-1 identifies acceptable slope faced curb and gutter along with the appropriate storm sewer inlet covers. SDD 14B 22-3b shows plan views of flowline transitions at thrie beam connection to bridge parapets. Designers should be aware of this transition to properly match the curb and gutter flowline to the parapet.

Curb and gutter and beam guard at bridges.

The determining of the size and type of curb and gutter should be completed in the early stages of the design when developing the typical sections. Designers should identify areas where hazards to the driver exists or will be created in the design where protection may be required. Examples of some hazards include bridge parapets, steep slopes or drop offs, and sign bridges.

For projects already in construction, project leaders should contact Dave Buschkopf at (262)548-8738, or Scott Ahles at (262) 548-6894, prior to changing the curb and gutter on there projects due to beam guard issues.

Minor Goes Major

Section 104.2.2.4, of the Standard Specifications, "Change Orders for Significant Changes in the Character of the Work", discusses alterations or changes in the quantity of items which significantly change the character of the work. One part of this section discusses when a minor bid item quantity is exceeded to the point that the bid item is considered a major item in the contract.

A minor bid item is defined as one where the total cost of the item, based on the original contract unit price, is less than 5% of the original contract amount. If the quantity is increased for this item to the extent that the new cost of that item is equal to or exceeds the 5% of the original contract cost, the item is now considered a major bid item in the contract.

When this happens the department will, at the contractor's request, adjust the contract unit price for that bid item as described in Section 109.4.4 of the Standard Specifications. Only the portion of the quantity exceeding the 6.25% of the original contract cost is eligible for payment at the renegotiated price.

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